WHAT IS CLAIMED IS:

1.   A method of representing performance of a drug candidate, the method comprising:

receiving raw data generated by a model of drug candidate behavior, the raw data comprising index information, treatment scenario input information types, and corresponding output performance information types;

extracting the index information from the raw data;

referencing the extracted index information to generate a metadata file, a structure of the metadata file explicitly reflecting a hierarchical structure of the model;

referencing the metadata file to convert the raw data file into a binary file, the metadata file explicitly identifying locations of treatment scenario information types and the output performance information types within the binary file;

generating a user interface from the metadata file, the interface comprising a menu of input variables;

presenting the menu to a user;

receiving a user-selected input at the interface;

causing the interface to reference the metadata file and the binary file to identify a subset of the binary file relevant to the user-selected input; and

presenting the data subset in one of a select type of presentation formats at the interface.

2.   The method of claim 1 wherein the data subset represents a clinical effect.

3.   The method of claim 1 wherein the data subset represents a likelihood of a clinical effect lying within a range of user-defined value.

4.   The method of claim 1 wherein the data subset represents a value of an independent variable required for a clinical effect to one of attain, exceed, and equal a user-defined value.

5.   The method of claim 1 wherein the data subset represents a value of an independent variable required for a clinical effect to fall one of within, above, and below a user-defined range of values.

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1   6.   The method of claim 1 wherein the presentation format comprises a

2   table.

1   7.   The method of claim 1 wherein the presentation format comprises a

2   matrix of tables.

1   8.   The method of claim 1 wherein the presentation format comprises a

2   plot.

1   9.   The method of claim 1 wherein the presentation format comprises a

2   matrix of plots.

1   10.   The method of claim 1 wherein the data subset represents a contrast

2   between output corresponding to two controllable variable input scenarios.

1   11.   The method of claim 10 wherein the data subset represents a

2   contrast between output corresponding to a first controllable variable input scenario

3   featuring the drug candidate, and a second controllable variable input scenario featuring a

4   competitor of the drug candidate.

1   12.   The method of claim 10 wherein the contrast represents one of a

2   difference, a ratio, and a log ratio.

1   13.   The method of claim 1 wherein the menu of input variables is

2   selected from the group consisting of an endpoint, a controllable variable, and an

3   uncontrollable variable.

1   14.   The method of claim 13 wherein endpoint is based upon a clinically

2   measured value.

1   15.   The method of claim 13 wherein the controllable variable is

2   selected from the group comprising drug candidate identity, drug candidate dose,

3   frequency of administration of drug candidate, and formulation of the drug candidate.

1   16.   The method of claim 13 wherein the uncontrollable variable

2   comprises a patient attribute selected from the group consisting of age, gender, body

3   weight, and disease state.

1   17.   The method of claim 13 wherein the uncontrollable variable

2 comprises a model assumption.

1   18.   The method of claim 1 wherein the raw data comprises a file

2 organized according to explicit index values, and the metadata file encodes the explicit

3 index values into a structure.

1   19.   The method of claim 18 wherein the raw data comprises multiple

2 files.

1   20.   The method of claim 18 wherein the raw data is converted into the

2 single binary file organized to match the encoded structure.

1   21.   The method of claim 18 wherein the raw data is converted into

2 multiple binary files organized to match the encoded structure.

1   22.   The method of claim 18 wherein the explicit index values are

2 encoded into an ordered tree structure.

1   23.   The method of claim 22 wherein the binary file comprises an n-

2 dimensional structure having a geometry matching the tree structure.

1   24.   The method of claim 1 wherein the menu comprises text from the

2 Metadata file.

1   25.   The method of claim 1 further comprising drafting an additional

2 conversion routine configured to recognize the raw data structure, and to transform the

3 raw data into a standard metadata file format.

1   26.   A computer system comprising a processor and a memory storing

2 code to operate the processor, the code comprising,

3   a parser module configured to receive raw data output by a model of drug

4 candidate behavior, and to generate a metadata file encoding outputs and related inputs of

5 the model based upon index information extracted from the raw data;

6   a data transfer module configured to convert the raw data into a binary file

7 organized to match a structure encoded in the metadata file; and

8   a graphic user interface configured to present a menu of input variables to a
9   user, to receive inputs selected by the user, to reference the metadata file and the binary
10   file to identify a subset of the binary file relevant to the selected inputs, and to present the
11   data subset in one of a select type of presentation format.

1   27.   The computer system of claim 26 wherein the raw data comprises:
2   an index file having row vectors including a row number, the row vectors
3   describing unique modeling input scenarios, and
4   a simulation output file comprising columns of number distributions
5   produced by the model when run through a simulation process utilizing the specific input
6   scenario, a column number corresponding to the row number; and wherein,
7   the metadata file is organized according to a tree structure, and the binary
8   file is organized into an n-dimensional structure whose geometry matches the tree
9   structure.

1   28.   The computer system of claim 26 wherein the parser module further
2   comprises a conversion routine configured to recognize a format of the model, and to
3   transform the raw data into a standard format of the metadata file.